



Dipartimento di Scienze  
degli Alimenti e del farmaco  
PhD Course in Drug sciences

UNIVERSITÀ  
DI PARMA



# Course announcement

## Practical biostatistics (1ECTS)

*Prof. Massimiliano Tognolini (University of Parma)*

**February 4, 2025 - 8:30 - 10:30**

**February 6, 2025 - 8:30 – 10:30**

**February 11, 2025 - 8:30 – 10:30**

*Course language: English*

### Course description

Practical lessons on biomedical data analysis and interpretation. The course will include a prominent amount of exercise by means of Excel and Prism – GraphPad. The following topics are expected to be addressed

Descriptive statistics:

- distributions, measures of central tendency, measures of dispersion, skewness

Data representation:

- bar plot, whisker plot, scatter plot, low-to-high

Inferential statistics

- population and sample
- comparing a sample with a population, a sample with a sample: t-test, p significance, type I and type II error.
- comparing 2 or more groups: One-way ANOVA, Two-way ANOVA
- simple regression and correlation
- non-parametric statistics:  $\chi^2$  test

Good statistical practices in experimental design and their reporting

Practical course.

**The course is limited to 15 students**

**Please register before January 27, 2025 by sending an e-mail to [Massimiliano.tognolini@unipr.it](mailto:Massimiliano.tognolini@unipr.it)**

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